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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,296	04/27/2004	Kevin Lin	6199400014	3295
30256	7590	04/19/2006	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P			VO, THANH DUC	
600 HANSEN WAY			ART UNIT	
PALO ALTO, CA 94304-1043			PAPER NUMBER	
			2189	

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/709,296	LIN, KEVIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thanh D. Vo	2189	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. This Office Action is responsive to the Application filed on April 27, 2006.

Claims 1-13 are presented for examination. Claims 1-13 are pending.

#### ***Specification***

2. The disclosure is objected to because of the following informalities:

The term "SRDAM" appears in numerous paragraph in the Specification which should be written as - SDRAM.

Appropriate correction is required.

#### ***Claim Objections***

3. Claims 1-13 are objected to because of the following informalities:

The term "SRDAM" in claims 1, 2, 5, 6, and 9 should be written as – SDRAM.

As per claims 1, the phrase "the label of each of said blocks" in line 4 is inconsistent terminology with the previous phrase "labeling said blocks" in line 3. In addition, the phrase "and a positive integer" should be written as "and is a positive integer".

As per claims 1, 5, and 9:

"in step" should be – in a step.

"said block" should be – said blocks.

"in according" should be – according.

The phrase "and a positive integer" should be written as "and is a positive integer".

As per claims 2 and 6, the phrase "wherein one said block has a remainder I is stored in the (I+1) bank in said SDRAM, I being a non-positive integer" should be written as "wherein one said block having a remainder I and one of said blocks is stored in the (I+1) bank in said SDRAM, wherein I being a non-positive integer".

As per claims 3 and 7, the term "backs" in line 2 should be written as – bank.

As per claims 4 and 8, "of corresponding" should be – of a corresponding.

As per claim 10, the phrase "wherein said buffer pipe is performed to receive said blocks before said code pipe is performed to decode said blocks" should be written as – "wherein said buffer pipe is performed to receive said blocks before said code pipe, wherein said code pipe is performed to decode said blocks".

As per claim 11, the phrase, "wherein said code pipe is performed after said transfer pipe is performed to transfer block from a terminal" should be written as – "wherein said code pipe is performed after said transfer pipe, wherein said transfer pipe is performed to transfer block from a terminal".

As per claims 11 and 13, "the group" in line 2 of claim 11 and line 2 of claim 13 should be – a group.

All dependent claims are objected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claim 1, it claims a limitation: "labeling said blocks successively from 1 in step of 1", however, in Fig. 3 the block are starting from 0 instead of 1. There's nowhere in the DESCRIPTION OF THE PREFERRED EMBODIMENTS except the SUMMARY which discloses such limitation. Since the SUMMARY is written with the same language as the claim, therefore such limitation is not supported by the Specification and not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claim 2, it claims a limitation: "wherein one said block has a remainder I is stored in the (I+1) bank in said SRDAM, I being a **non-positive integer** (emphasis

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added). Claim 2 is rejected under the same rationale as claim 1 since the Specification failed to specifically disclose such limitation.

Similar deficiencies can be found in claims 5, 6, and 9.

All dependent claims are rejected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

5. Claims 2, 4, 6, and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claims 2 and 6, the specification failed to describe or give an example of how the remainder  $I$  could be a non-positive integer.

All dependent claims are rejected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 2, 4, 6, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 2 and 6, Examiner was not able to determine how dividing a positive integer (label) by another positive integer (M-bank) has a remainder to be a non-positive integer.

All dependent claims are rejected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-4, 5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hennessy & Patterson in view of Nagayasu (US 6,801,988).

As per claims 1 and 5, Hennessy & Patterson discloses a system and method for storing data into a DRAM, comprising:

receiving a plurality of blocks of data (page 431, paragraph 5, line 3);

labeling said blocks successively from 0 in step of 1 (page 432, Fig. 5.32,

wherein each block is labeled from 0-15);

dividing the label of each of said blocks by M and acquiring a corresponding remainder for each of said block, wherein M is the number of banks in said DRAM and a positive integer (page 432, Fig. 5.32, paragraph 2, lines 1-5); and

storing said blocks in said DRAM in according to the following rule:

any logical adjacent said blocks are located physically at different banks of said DRAM (See Fig. 5.32, wherein each adjacent block are located in different bank, such as block 0 in bank 0 (logically) and block 1 in bank 1 (logically)).

Hennessy & Patterson did not particularly pointed out an SDRAM to store the data. Nagayasu discloses an SDRAM to store the data (col. 1, line 24). It would have been obvious to one having an ordinary skill in the art at the time of the Applicant's invention to modify the system of Hennessy & Patterson to use an SDRAM. The motivation of using the SDRAM instead of DRAM is because SDRAM can run at a higher clock speeds than DRAM by using the synchronous interface, which improve the data throughput as taught by Nagayasu in col. 1, lines 27-34.

As per claims 3 and 7, Hennessy & Patterson discloses a method, wherein a plurality of blocks in the same banks are stored in sequence (see Fig. 5.32, wherein the blocks are stored in sequence from 0, 4, 8, 12 in bank 0 and 1, 5, 9, 13 in bank 1, etc.).

As per claims 4 and 8, Hennessy & Patterson discloses a method, wherein said blocks are arranged in the order of corresponding remainder (see Fig. 5.32, wherein



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each bank # is corresponded to the remainder and each block starting with address of 0 to 15 are arranged in the order corresponding to the remainder).

8. Claims 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hennessy & Patterson in view of Applicant Admitted Prior Art (hereinafter AAPA) and further in view of Nagayasu (US 6,801,988).

As per claim 9, Hennessy & Patterson discloses a method of operating a disc player with a DRAM, comprising:

wherein the steps of storing said blocks of data into said DRAM comprising:  
labeling said blocks successively from 0 in step of 11 (page 432, Fig. 5.32, wherein each block is labeled from 0-15);

dividing the label of each of said blocks by M and acquiring a corresponding remainder for each of said block, wherein M is the number of banks in said DRAM and a positive integer (page 432, Fig. 5.32, paragraph 2, lines 1-5); and

storing said blocks in said DRAM in according to the following rule:

any logical adjacent said blocks are located physically at different banks of said DRAM (See Fig. 5.32, wherein each adjacent block are located in different bank, such as block 0 in bank 0 (logically) and block 1 in bank 1 (logically)).

Hennessy & Patterson failed to disclose a method of processing a plurality of blocks of data by performing a buffer pipe, a code pipe, and a transfer pipe in a specific order.

However, the AAPA discloses a method of processing a plurality of blocks of data by performing a buffer pipe, a code pipe, and a transfer pipe in a specific order (see page 1, paragraph 006 of Applicant Published Application). It would have been obvious to one having an ordinary skill in the art at the time of the Applicant's invention to combine the method taught by AAPA into the method taught by Hennessy & Patterson since a buffer is to store data to be decoded or encoded before writing or transferring the data to a device such as CD-RW or DVD-RW. Since a buffer will speed up the access time and writing time therefore it would have been obvious to one having an ordinary skill in the art at the time of the Applicant's invention to modify the system of Hennessy & Patterson to combine the process which comprises of buffering, encoding or decoding, and transferring in the order set forth.

Hennessy & Patterson did not particularly disclose an SDRAM to store the data. Nagayasu discloses an SDRAM to store the data (col. 1, line 24). It would have been obvious to one having an ordinary skill in the art at the time of the Applicant's invention to modify the system of Hennessy & Patterson to use an SDRAM. The motivation of using the SDRAM instead of DRAM is because SDRAM can run at a higher clock speeds than DRAM by using the synchronous interface, which improve the data throughput as taught by Nagayasu in col. 1, lines 27-34.

As per claims 10 and 12, although Hennessy & Patterson did not particularly disclose a method, wherein said buffer pipe is performed to receive said blocks before said code pipe, wherein said code pipe is performed to decode (claim 10) or encode

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(claim 12) said blocks, moreover, wherein said code pipe is performed before said transfer pipe is performed to transfer decoded (claim 10) or encoded (claim 12) block to a terminal.

However, AAPA disclosed, wherein said buffer pipe is performed to receive said blocks before said code pipe, wherein said code pipe is performed to decode or encode said blocks, moreover, wherein said code pipe is performed before said transfer pipe is performed to transfer decoded or encoded block to a terminal (page 1, paragraph 0005 and 0006 of Applicant Published Application, wherein it operates in order of: buffering, decoding/encoding, and transferring).

Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hennessy & Patterson, Applicant Admitted Prior Art (hereinafter AAPA), and Nagayasu (US 6,801,988) and further in view of Kimura (US 2005/0162206).

As per claims 11 and 13, although Hennessy & Patterson, AAPA, or Nagayagu did not particularly disclose a terminal being chosen from a group consisting of the following: laptop, table personal computer, player, display, and combination thereof. However, Kimura discloses a laptop, personal computer, player, display and combination of those terminals can be applied (page 12, paragraph 0187, lines 1-12). It would have been obvious to one having an ordinary skill in the art at the time of the Applicant's invention to recognize and taking the advantage of the current invention to implement or using with said terminals in order to provide a more efficient and stable system to the terminals.

**Conclusion**

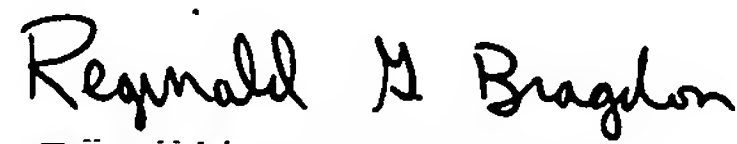
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh D. Vo whose telephone number is (571) 272-0708. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald G. Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thanh Vo  
Patent Examiner  
AU 2189  
4/12/2006

  
**REGINALD G. BRAGDON**  
PRIMARY EXAMINER